

rather rare weed among the grain, and walked to the fence to view it more closely. He looked at the weed and then at the signs, and then at the weed again, and I could see the external evidences of a severe internal conflict between the judge and the botanist. The botanist won, and he explained to me that he was probably really doing a favor to the landowner by removing this weed before it spread and became a pest.

These are but a few of many memories of the earlier period of the Club, an age not necessarily better or worse than the present, but though in some external details our organization was then much like that of today, yet in other details, of human personalities, the Club stood in considerable contrast at various points. As Tennyson remarks,

God fulfills himself in many ways,
Lest one good custom should corrupt the world.

A NEW HEUCHERA FROM MISSOURI TOGETHER
WITH SOME NOTES ON THE HEUCHERA
PARVIFLORA GROUP

C. O. ROSENDAHL

A NUMBER of years ago Dr. Steyermark sent me a specimen of a *Heuchera* from Wayne County, Missouri which at the time Dr. Butters and I took to be a hybrid of *H. puberula* × *H. americana* var. *hirsuticaulis*. Upon further examination of the material I became convinced that this surmise was wrong for I was unable to find any clear evidence of any admixture of var. *hirsuticaulis* in the assumed cross. Also it was manifest that the plant was closer allied to *H. parviflora* var. *Rugelii* than to the geographically more restricted *H. puberula*. Although it clearly differed from typical *Rugelii* in the densely glandular-villous petioles and stems, in the less open inflorescence with more numerous shorter pedicelled flowers I was nevertheless disposed to regard it only as a somewhat aberrant individual of this wide ranging variety. Later on Dr. Steyermark sent me more material and at the same time called attention to several vegetative and floral characters in which it differed from var. *Rugelii*. He suggested that it might prove to be something new.

With the aid of this material it has been possible to undertake a more thoroughgoing study and clear up the earlier doubt about the proper status of the plant.

Heuchera missouriensis sp. nov. Acaulescens vel subcaulescens e caudice crassa, reliquis petiolorum vetustorum vestita; folia petiolis (5) 8–14 (19) cm. longis dense villosis pilis longis glandulosis pallido-ferruginis vel sordidis; stipulis oblongis adnatis fimbriatis 5–10 mm. longis; laminis 8–12 cm. longis, 10–14 cm. latis orbiculari-reniformis plerumque 7–9 lobatis, lobis crenatodentatis, dentibus late-obtusis mucronatis vel interdum acutiusculis, superficie superiore plus minusve villosa, inferiore dense villosa praesertim in venis primis; caules floriferi 20–36 cm. alti glanduloso-villosi, bracteis sterilibus nonnullis et interdum 1–2 foliis minoribus instructi, bracteis fertilibus atque sterilibus 3–8 mm. longis, prope basin trifidis consistunt in laminibus mediis angustis plus minusve laciniato-pinnatifidis atque stipulis binis adnatis ovatis vel lanceolatis fimbriatis; paniculae 10–18 cm. longae, angustae multiflorae; cymulis (5) 7–9 (12) floriferis, dichasialis; pedicellis ad 5 mm. longis demum arcuato-recurvatis; flores parvi glanduloso-pubescentes in anthesin 3.5–4.5 mm. longi, calycibus brevibus turbinatis 2–2.5 mm. longis rubro-brunescentibus; sepalis ovatis, obtusis 1–1.2 mm. longis etiamque latis; petalis albis oblanceolatis 1.6 mm. longis, 0.6 mm. latis breve unguiculatis; staminibus 2.5–3 mm. longis; filamentis subclavatis; stylis sensim attenuatis primum subdivergentibus demum divaricatis, ad basin minute-puberulentis; stigmata subcapitata; fructus turbinatus 2.4–3 mm. longus, rostra capsulorum valde divaricata vel recurvata; semina nigra 0.35–0.45 mm. longa leviter verrucosostriata.

The species is known from two stations in southeastern Missouri, one in Madison County on limestone bluffs along the St. Francis River near the mouth of Captain Creek—*Steyermark* 20980, Nov. 15, 1936; the other in Wayne County at Hall's Bluff, south of Davidson's Blue Spring, also on limestone,—*Steyermark* 6342 (type), Sept. 1, 1938. Two additional collections from the latter station are *Steyermark* 11542, July 9, 1936 and *Steyermark* 66966, Oct. 21, 1948.

As already stated the new species is closely related to *H. parviflora* var. *Rugelii*. It differs from the latter in the more densely glandular-villous pubescence of stems, petioles, and under surface of the leaves, in the narrower inflorescence with more numerous shorter pedicelled flowers (Pl. 1166) with short blunt sepals which are as wide as long (Fig. 4) and in the petals which have a short instead of a relatively long, slender claw (Fig. 5). In var. *Rugelii* as the fruit develops the part of the hypanthium adnate to the ovary enlarges considerably resulting in an ovoid capsule with a rounded base, whereas in *H. missouri-*



Photo by Wilma Monserud

HEUCHERA MISSOURIENSIS ROSENDAHL

ensis there is scarcely any such enlargement so that the capsule remains obconic at the base (Fig. 3). The mature fruit of the former, exclusive of the styles proper, measures 3.5–4.5 mm. in length contrasted with 2.5–3 mm. for the latter. The beaks of

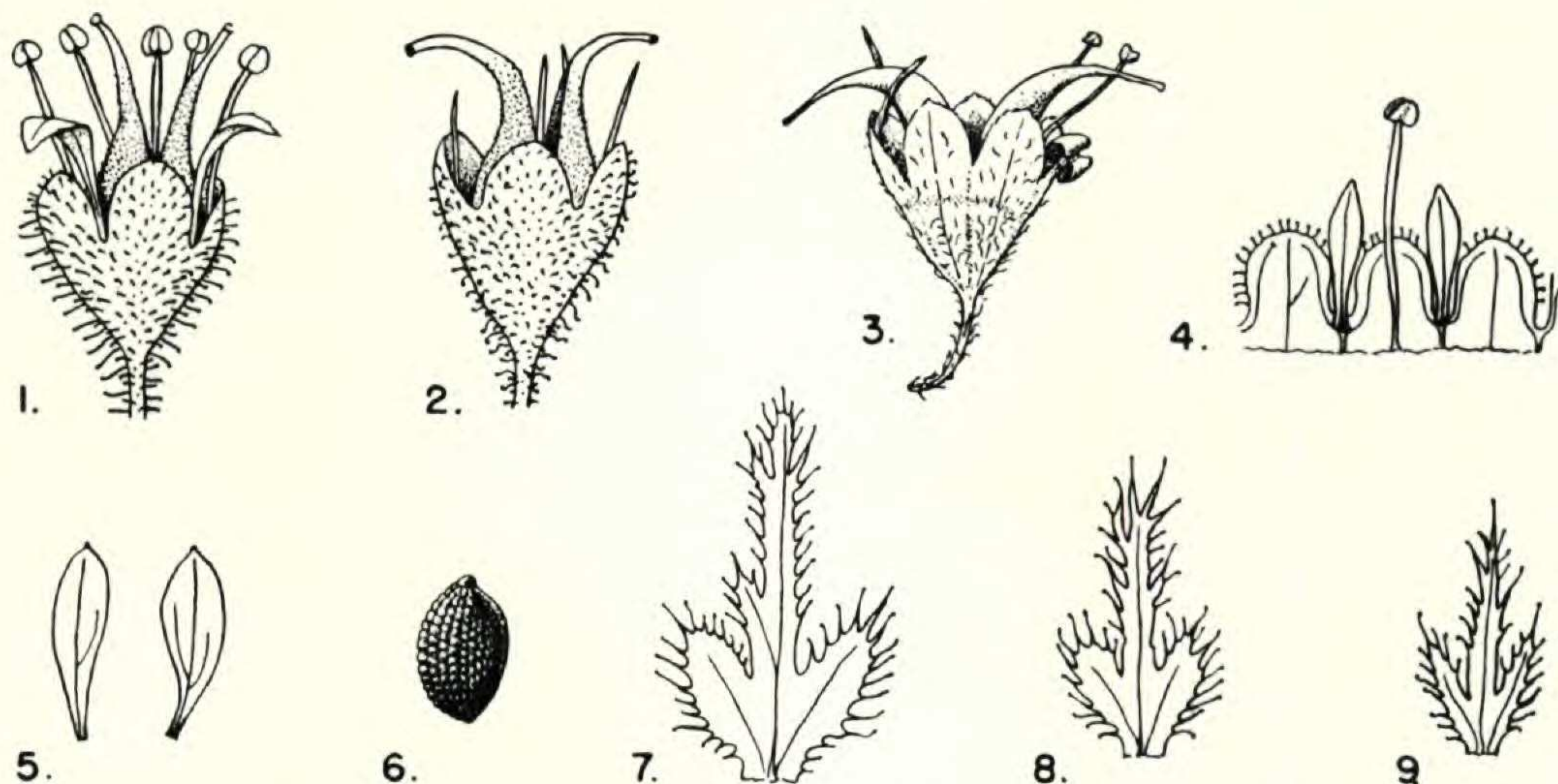


FIG. 1. Flower at anthesis, $\times 5$; FIG. 2. Immature fruit, $\times 5$; FIG. 3. Fully mature fruit, $\times 5$; FIG. 4. Part of dissected flower, $\times 5$; FIG. 5. Petals $\times 5.5$; FIG. 6. Seed $\times 23$; FIG. 7. Bract from below inflorescence, $\times 3.5$; FIG. 8. Bract from base of inflorescence, $\times 3$; FIG. 9. Bract from about middle of inflorescence, $\times 3.3$.

the mature carpels in var. *Rugelii* are for the most part erect or only slightly divergent with the styles directed forward, while in *H. missouriensis* the beaks are widely spreading and the styles usually recurved (Fig. 3). The seeds of *H. parviflora* and its var. *Rugelii* appear smooth (under a magnification of $\times 20$) or at most marked with a few faint irregular ridges, while in the new species the seeds are finely verrucose-striate (Fig. 6).

In our monographic treatment of *Heuchera*¹ we pointed out that *H. parviflora* var. *Rugelii* is much more widely distributed than var. *typica*, occurring from western North Carolina northward into West Virginia, thence westward through Tennessee, Kentucky, southern Indiana to southern Illinois and south into northern Georgia, Alabama and Mississippi. Throughout this wide territory the variety is remarkably uniform as regards inflorescence, flowers and fruit but may vary considerably in the amount of pubescence of stems, petioles and leaf blades. In

¹ Rosendahl, Butters and Lakela, A Monograph of the Genus *Heuchera*. Minnesota Studies in Plant Science 2: 38, 1936.

some collections from southern Illinois, particularly G. H. French No. 2062, from Carbondale and Leslie Hulbright No. B2280 from 3 miles south of Ava, both in Jackson County, and E. J. Palmer No. 16659 from Tunnel Hill, Johnson County, the plants approach *H. missouriensis* in degree of pubescence and in the size of the leaves but in flower, fruit and seed characters they are nevertheless quite typical var. *Rugelii*. Collections of *Heuchera* from Missouri which have been identified and reported either as *H. parviflora* or *H. Rugelii* are *H. puberula* Mackenzie & Bush. Most of them were made before the establishment of this species in 1905 but a few are also of later date. It is reasonable to expect that var. *Rugelii* may still turn up in Missouri since it occurs in at least two of the counties of Illinois bordering on the Mississippi River but so far I have no evidence that its range extends farther westward.

H. puberula is apparently a common and characteristic element of the Ozarkian flora of middle southern Missouri and adjoining parts of Arkansas, judging by the numerous collections of it preserved in the herbarium of the Missouri Botanical Garden. Of the more than two score sheets I have examined all are of collections from this circumscribed area with the solitary exception of one of W. W. Eggleston (No. 5467) ticketed "Plants of Leichfield Grayson County, Kentucky." Leichfield is situated more than 300 miles farther east than the nearest known station for the species in Missouri. The specimen in question is without doubt true *H. puberula* but the fact that I have seen no other collection of the species from the Leichfield region nor from anywhere else between there and the easternmost station in Missouri leads me to suspect that there may have been a mix-up of Eggleston labels with Missouri plants. An isolated occurrence of the species near the middle of Kentucky is of course possible but until it is corroborated by additional material there is good reason for being skeptical about it. *H. puberula* is readily distinguished from the other members of the *parviflora* group by the characteristic short glandular puberulence of stems, petioles and leaf surfaces. The puberulence varies from sparse to dense and in some cases a short portion of the petiole immediately below the leaf blades may be short glandular-villous. Very rarely plants are encountered with scattered longer glandular hairs on the